Marine Mammal Science

Volume 22 Page 802 - October 2006 doi:10.1111/j.1748-7692.2006.00052.x Volume 22 Issue 4

THE SHORT-TERM BEHAVIORAL REACTIONS OF BOTTLENOSE DOLPHINS TO INTERACTIONS WITH BOATS IN DOUBTFUL SOUND, NEW ZEALAND

David Lusseau*†
Key words:

bottlenose dolphin Tursiops tourism impact behavioral reaction

Received: 26 April 2005 Accepted: 2 February 2006

Published article online 25 Apr 2006 Issue online 25 Apr 2006

Affiliations

*Department of Zoology, University of Otago, P. O. Box 56, Dunedin, New Zealand and †Department of Biology,¹ Dalhousie University, 1355 Oxford Street, Halifax, Nova Scotia B3H 4J1, Canada E-mail: d.lusseau@dal.ca

To cite this article

Lusseau, David (2006)
THE SHORT-TERM
BEHAVIORAL REACTIONS OF
BOTTLENOSE DOLPHINS TO
INTERACTIONS WITH BOATS
IN DOUBTFUL SOUND, NEW
ZEALAND.

Marine Mammal Science **22** (4), 802-818. doi: 10.1111/ j.1748-7692.2006.00052.x

Doubtful Sound is home to one of the southernmost resident populations of bottlenose dolphins (*Tursiops* sp.). This population regularly interacts with scenic cruises. During these interactions, dolphins tend to horizontally and vertically avoid vessels, especially when the behavior of these vessels is intrusive. This study aimed at understanding the behavioral reactions of individuals to these interactions that lead to the disruption of the school's behavioral state. Observing the behavioral events performed by individuals during an interaction can help define the short-term reactions elicited by the boat presence. I recorded the behavioral events performed by all individuals of focal schools. The frequency of occurrence of all events was compared depending on the presence of vessels, their behavior, and the behavioral state of the focal school. Dolphins tended to perform more side flops while interacting with powerboats, a behavior which may be used as a non-vocal communication tool. Moreover, the movement of dolphins became more erratic during interactions with all types of vessels. These effects increased when the boats were more intrusive while interacting. This study shows that the impact of interaction with boats can be minimized if the vessels respect the guidelines in place.